

Claims

We claim:

- 5 1. A nonwoven web comprising at least one side which is abrasion resistant, has a surface roughness of at least 20 μm , and a fuzz-on-edge value less than 1.0 mm/mm.
2. The nonwoven web of claim 1, wherein the nonwoven web comprises one or more a spunbond nonwoven web, a meltblown nonwoven web, a bonded carded web, an air-laid
10 nonwoven web or a coform nonwoven web.
3. The nonwoven web of claim 2, wherein the nonwoven web comprises a spunbond nonwoven web.
- 15 4. The nonwoven web of claim 1, wherein the nonwoven web comprises monocomponent fibers, multicomponent fibers and/or multiconstituent fibers.
5. The nonwoven web of claim 1, wherein the nonwoven web comprises crimped multicomponent fibers.
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6. The nonwoven web of claim 5, wherein the crimped multicomponent fibers comprise spunbond fibers.
7. The nonwoven web of claims 1, wherein the nonwoven web has a density greater
25 than about 0.005 g/cm³ and less than about 0.3 g/cm³.
8. The nonwoven web of claim 1, wherein the fuzz-on-edge is less than 0.5 mm/mm.
9. The nonwoven web of claim 1, wherein the nonwoven web comprises thermoplastic
30 fibers.
10. The nonwoven web of claim 9, wherein the thermoplastic fibers comprise at least one thermoplastic polymer selected from polyolefins, polyesters, polyamides, polycarbonates, polyurethanes, polyvinylchloride, polytetrafluoroethylene, polystyrene, polyethylene
35 terephthalate, polylactic acid and copolymers and blends thereof.

11. The nonwoven web of claim 1, wherein the nonwoven web comprises a bonded web of crimped continuous multicomponent spunbond fibers wherein the nonwoven web has a density greater than about 0.005 g/cm³ and about 0.3 g/cm³.
12. The nonwoven web of claim 11, wherein the fuzz-on-edge is less than 0.5 mm/mm.
13. The nonwoven web of claim 11, wherein the multicomponent fibers comprise polypropylene as one component and a polyethylene as a second component.
14. A laminate comprising a first nonwoven web and a second nonwoven web, wherein the first nonwoven web comprises two sides wherein a first side is abrasion resistant, has a surface roughness of at least 20 μm, and a fuzz-on-edge less than 1.0 mm/mm and a second side which is adjacent to the second nonwoven web.
15. The laminate of claim 14, wherein the first nonwoven web has a density which is greater than the second nonwoven web.
16. The laminate of claim 15, wherein the first nonwoven web has a density between about 0.05 g/cm³ to about 0.30 g/cm³ and the second nonwoven web has a density between about 0.005 g/cm³ and about 0.1 g/cm³.
17. The laminate of claim 14, wherein the first and second nonwoven webs each independently comprise a spunbond nonwoven web, a meltblown nonwoven web, a bonded carded web, an air-laid nonwoven web or a coform nonwoven web.
18. The laminate of claim 14, wherein the first and second nonwoven webs comprise a spunbond nonwoven web.
19. The laminate of claim 14, wherein the first and second nonwoven webs each independently comprise monocomponent fibers, multicomponent fibers and/or multiconstituent fibers.

20. The laminate of claim 19, wherein the spunbond fibers comprise crimped multicomponent fibers spunbond fibers.
- 5 21. The laminate of claim 14, wherein the fuzz-on-edge of the first nonwoven web is less than 0.5 mm/mm.
22. The laminate of claim 17, wherein the first and second nonwoven webs each comprise of thermoplastic fibers wherein the thermoplastic fibers comprises at least one
10 thermoplastic polymer selected from polyolefins, polyesters, polyamides, polycarbonates, polyurethanes, polyvinylchloride, polytetrafluoroethylene, polystyrene, polyethylene terephthalate, polylactic acid and copolymers and blends thereof.
23. The laminate of claim 17, wherein the first and second nonwoven webs each
15 independently comprises a bonded web comprising crimped continuous multicomponent spunbond fibers wherein the first nonwoven web has a density greater than the second nonwoven web and the density of the first nonwoven web is between about 0.05 g/cm³ to about 0.30 g/cm³ and the second nonwoven web has a density between about 0.005 g/cm³ and about 0.1g/cm³.
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24. The laminate of claim 23, wherein the multicomponent fibers comprise polypropylene as one component and a polyethylene as a second component.
- 25 25. A method of preparing a nonwoven web comprising
a. providing a forming surface;
b. supplying a liner material onto the forming surface;
c. forming a nonwoven web on the liner material;
d. bonding the nonwoven web to form a bonded nonwoven web which is at least
30 partially bonded to the liner; and
e. removing the bonded nonwoven web from the liner material.
26. The method of claim 25, wherein the liner material comprises a nonwoven material.

27. The method of claim 26, wherein the liner material comprises a spunbond nonwoven web.
28. The method of claim 26, wherein the liner material comprises a spunbond nonwoven web having a basis weight of about 5 gsm to about 35 gsm.
29. The method of claim 25, wherein the forming of the nonwoven web comprises one or more of spunbonding, meltblowing, air-laying, or coforming.
30. The method of claim 29, wherein the forming of the nonwoven web comprises a spunbonding.
31. The method of claim 30, wherein the spunbonding comprises spunbonding multicomponent fibers.
32. The method of 25, wherein said bonding comprises through-air bonding.
33. The method of claim 25, wherein the supplied liner comprises a spunbond nonwoven web, the forming of the nonwoven web comprises spunbonding multicomponent fibers.
34. The method of claim 33, wherein the bonding comprises through-air bonding.
35. The nonwoven web produced by the method of claim 25.
36. A filter media comprising the nonwoven web of claim 1.
37. A filter media comprising the laminate of claim 14.